

We Claim:

1. A load floor latch comprising:
  - a. an actuation assembly;
  - b. a pawl member;
  - c. a lid for attachment of said actuation assembly and said pawl member; and
  - d. a lid cover.
2. The load floor latch of claim 1, wherein said actuation assembly comprises a hoop actuation element comprising a hoop handle integral with a pair of L-shaped arms extending therefrom, wherein said L-shaped arms have a proximal end and a distal end, wherein said hoop handle is integral with said proximal end of said L-shaped arms, wherein said distal ends have integral detent features.
3. The load floor latch of claim 2, wherein said L-shaped arms have stops attached to said distal end.
4. The load floor latch of claim 3, wherein said actuation means further comprises a leg actuation element having two identical shaft sections connected by a center shaft, wherein said identical sections have a first end having apertures therein for attachment to said detent features on said hoop actuation member and a second end having snap-in shaft member substantially parallel to said center shaft, wherein one side of said identical shaft portions include strength ribs.
5. The load floor latch of claim 4, wherein said identical shaft section have camming surfaces for abutting said stops on said distal end of said L-shaped arms.
6. The load floor latch of claim 5, wherein said pawl member comprises a body portion integral at one end with a living spring wherein said living spring terminates with a pawl tail, wherein a second end of said body portion comprises a slam action ramped element.

7. The load floor latch of claim 5, wherein said lid member comprises a pair of side wall sections, wherein said pair of sidewalls are connected by a perpendicular sidewall, wherein said pair of side wall sections define a slot area for positioning of said pawl member.

8. The load floor latch of claim 7, wherein said perpendicular sidewalls have positioning tabs to align said snap-in shaft members of said leg actuation element, wherein during activation of said latch said leg actuation element contact the lid when said handle hoop handle is pulled upward causing said central shaft to slide upward along said ramped element against the bias of said living spring thereby forcing the pawl member to disengage a frame.

9. The load floor latch of claim 8, wherein said lid cover comprises a camming surface for camming of said living spring of said pawl member during activation and slam action closure of said latch.

10. The load floor latch of claim 8, wherein said slot of said lid comprises a pawl holder for acceptance of said pawl tail.

11. The load floor latch of claim 10, wherein said lid has a slot therein for accessibility to said pawl tail.

12. The load floor latch of claim 11, wherein said lid cover has an aperture for accessibility to the pawl member.

13. The load floor latch of claim 10, wherein said lid is flat and continuous.

14. The load floor latch of claim 13, wherein said lid cover is flat and compliments the shape of the lid.

15. The load floor latch of claim 10, wherein a support bar traverses said slot attached to said pair of side wall sections.

16. A load floor latch comprising:
- a. an actuation assembly;

b. a pawl member;

c. a housing for maintaining said actuation assembly and said pawl member; wherein said housing comprises a pair of side wall sections having an interior and exterior surfaces, wherein said pair of sidewalls connected by a perpendicular sidewall, wherein said pair of side wall sections define a slot area having a back wall for positioning of said pawl member, wherein said exterior surfaces contain a plurality of snap legs, wherein said side walls have a plurality of aperture for attachment of said actuation assembly; and

d. a lid having a plurality of walls designed to compliment the shape of said housing for attachment thereof, wherein said walls have engagement recesses.

17. The load floor latch of claim 16, wherein said actuation means comprises a hoop actuation element having a hoop handle attached proximal to a pair of L-shaped arms extending therefrom, wherein said L-shaped arms have integral detent features on the distal ends.

18. The load floor latch of claim 17, wherein said actuation means further comprises a leg actuation element having two identical shaft sections connected by a center shaft, wherein said identical sections have a first end having apertures therein for attachment to said detent features on said hoop actuation and a second end having snap-in shaft member substantially parallel to said center shaft for attachment to said side walls of said lid, wherein during activation of said latch said leg actuation element contact said lid when said hoop handle is pulled upward causing said central shaft to slide upward along said ramped element against the bias of said living spring thereby forcing the pawl member to disengage a frame

20. The load floor latch of claim 18, wherein said pawl member comprises a body portion integral at one end with a living spring wherein said living spring terminates

with a pawl tail, wherein a second end of said body portion comprises a slam action ramped element.

21. The load floor latch of claim 20, wherein said pawl body portion has extended side sections each having a sliding surface thereon.

22. The load floor latch of claim 21, wherein said slot area of said housing comprising a pair of guide attached to said interior surface of said pair of side wall sections for guiding and restraining said sliding surfaces of said extended area of said pawl member body, wherein said slot further comprises a pawl holder for camming said pawl tail.

23. The load floor latch of claim 20, wherein said housing comprising a protruding flange and a surface flange for attachment to said lid, wherein said back wall comprises a slot for positioning of said pawl tail.

24. The load floor latch of claim 23, wherein said lid has a flange slot for mating with said protruding flange of said housing, wherein the housing further includes mounting studs for mating with said snap legs of said housing.

25. A load floor latch comprising:

- a. an actuation means;
- b. a pawl member;
- c. a biasing means for engaging and disengaging said pawl member from a frame; and
- d. a means for attachment to a panel member.

26. The load floor latch of claim 25, wherein said actuation means comprises a hoop handle entrapped within said biasing means, wherein said pawl member extends therefrom.

27. The load floor latch further comprises a body portion having a first end and a second end, wherein said first end is integral with said means for attachment to a panel.

28. The load floor latch of claim 27, wherein said means for attachment to a panel is a forward bezel lid hook which is continuous with said living spring.

29. The load floor latch of claim 27, wherein said second end of said body portion includes a downwardly extending bezel lid snap-in leg, wherein said snap-in legs terminates in a rear bezel lid snap-in hook.

30. A load floor latch comprising:

- a. an actuation means;
- b. a pawl member;
- c. a biasing means for engaging and disengaging said pawl member from a frame;
- d. a housing having a pair of side walls, a rear wall, a top portion, a bottom portion, a horizontal flange protruding outward from the bottom portion defining a hole and an outwardly extending flange around said top portion and said side portions of said housing.; and
- f. a lid support device to secure said latch to a frame.

31. The load floor latch of claim 30 further comprising an ejector having a shafts extending outward for pivotably securing said ejector to said housing.

32. The load floor latch of claim 31, wherein said housing has a central button portion having at least one slot located above an ejector stop, wherein a spring guide is located centrally, wherein a button spring having a first end and a second end wherein said first end is attached to said spring guide, wherein said second member of said button spring contact said central button portion, wherein a pair of ejector holes are located below for attachment of said ejector.

33. The load floor latch of claim 32, wherein said button portion includes a pair of stop tabs dimensioned and configured to mate with said slot on said housing.

34. The load floor latch of claim 33, wherein said actuation means is a button member having a front side, back side, face portion, bottom sides and top sides wherein said button member is attached to said housing by a pair of detent features located on said side portions of said button member wherein said button portion rotates within a pair of holes in said side walls of said housing.

35. The load floor latch of claim 34, wherein said ejector member comprises an ejector spring guide is biased by a spring attached to said bottom portion.

Patent Application No. 10/000,000